

CLAIM AMENDMENTS

1. (Currently Amended) An auditory test instrument, comprising:

~~an audiometer;~~

~~a plurality of speakers wherein said speakers are used during testing procedures and hearing instrument evaluation procedures; and~~

~~means coupled to said~~ an audiometer coupled to said plurality of speakers, the audiometer configured for performing auditory diagnostic tests and for calibrating said plurality of speakers to compensate for environmental differences.

2. (Currently Amended) The auditory test instrument of claim 1, wherein said audiometer ~~further~~ comprises:

at least one test probe;

~~a power supply for supplying power to the auditory test instrument;~~

a diagnostic subsystem coupled to said at least one test probe, said diagnostic subsystem adapted to implement at least one auditory diagnostic test;

input means adapted to accept commands from a user;

a display adapted to display results from said at least one auditory diagnostic test; and

at least one processor coupled to said diagnostic subsystem and to said input means.

3-18. (Cancelled).

19. (Currently Amended) The auditory test instrument of claim 2 1, wherein said plurality of speakers ~~are comprised of~~ comprises at least five speakers.

20. (Cancelled)

21. (Currently Amended) A method of calibrating an auditory test instrument, comprising the steps of:

coupling a plurality of speakers to an audiometer;  
coupling a microphone to said audiometer;  
automatically emitting a plurality of frequencies and timing signals through each of said plurality of speakers, wherein said automatic emitting step is controlled by said audiometer;  
automatically calculating speaker levels and timing delays for each of said plurality of speakers, wherein said automatic calculating step is controlled by said audiometer; and  
automatically calibrating individual speakers with a multi-band equalizer, wherein said automatic calibrating step is controlled by said audiometer and wherein said multi-band equalizer is integrated into said audiometer.

22. (New) The auditory test instrument of claim 1, wherein said environmental differences comprise differences in environmental acoustics and/or speaker placement.

23. (New) The auditory test instrument of claim 1, wherein said audiometer is configured for calibrating said plurality of speakers by obtaining proper individual speaker level settings and/or time delays.

24. (New) The auditory test instrument of claim 1, further comprising a microphone coupled to said audiometer, wherein said audiometer is configured for emitting sound through each of said plurality of speakers, said microphone is configured for receiving said sound, and said audiometer is configured for calibrating individuals of said plurality of speakers based on said received sound.

25. (New) The auditory test instrument of claim 24, wherein said audiometer is configured for emitting a plurality of frequencies and timing signals through each of said plurality of speakers,

and said audiometer comprises a multi-band equalizer configured for calibrating said individual speakers.

26. (New) A method of calibrating an auditory test instrument, comprising:  
arranging a plurality of speakers within a testing room remote from an intended listener/patient position;  
coupling said plurality of speakers to an audiometer; and  
calibrating said arranged plurality of speakers.

27. (New) The method of claim 26, wherein said speaker arranging comprises:  
arranging a first pair of speakers in front of and to either side of said listener/patient position;  
arranging a second pair of speakers behind and to either side of said listener/patient position;  
and  
arranging a speaker directly in front of said listener/patient position.

28. (New) The method of claim 26, wherein said plurality of speakers is automatically calibrated by said audiometer.

29. (New) The method of claim 26, wherein said plurality of speakers is calibrated to compensate for speaker misplacement.

30. (New) The method of claim 26, wherein said speaker calibrating comprises obtaining proper individual speaker level settings and/or time delays.

31. (New) The method of claim 26, further comprising:  
coupling a microphone to said audiometer;  
emitting sound through each of said plurality of speakers;

receiving said sound with said microphone; and

calibrating individuals of said plurality of speakers based on said received sound.

32. (New) The method of claim 31, further comprising positioning said microphone at said intended listener/patient position.

33. (New) The method of claim 31, wherein:

said sound emitting comprises emitting a plurality of frequencies and timing signals through each of said plurality of speakers; and

said individual speakers are calibrated with a multi-band equalizer.

34. (New) The method of claim 26, further comprising operating said audiometer to perform auditory diagnostic tests.

35. (New) An auditory test system, comprising:

a testing room;

a plurality of speakers arranged within said testing room remote from an intended listener/patient position; and

an audiometer coupled to said plurality of speakers, the audiometer configured for performing auditory diagnostic tests and for calibrating said plurality of speakers.

36. (New) The auditory test system of claim 35, wherein said audiometer comprises:

at least one test probe;

a diagnostic subsystem coupled to said at least one test probe, said diagnostic subsystem adapted to implement at least one auditory diagnostic test;

input means adapted to accept commands from a user;

a display adapted to display results from said at least one auditory diagnostic test; and

at least one processor coupled to said diagnostic subsystem and to said input means.

37. (New) The auditory test system of claim 35, wherein said plurality of speakers comprises a first pair of speakers in front of and to either side of said listener/patient position, a second pair of speakers behind and to either side of said listener/patient position, and a speaker directly in front of said listener/patient position.

38. (New) The auditory test system of claim 35, wherein said audiometer is configured for calibrating said plurality of speakers by obtaining proper individual speaker level settings and/or time delays.

39. (New) The auditory test system of claim 35, further comprising a microphone coupled to said audiometer, wherein said audiometer is configured for emitting sound through each of said plurality of speakers, said microphone is configured for receiving said sound, and said audiometer is configured for calibrating individuals of said plurality of speakers based on said received sound.

40. (New) The auditory test system of claim 39, wherein said audiometer is configured for emitting a plurality of frequencies and timing signals through each of said plurality of speakers, and said audiometer comprises a multi-band equalizer configured for calibrating said individual speakers.

41. (New) An auditory test instrument, comprising:

a plurality of speakers;

an audiometer coupled to said plurality of speakers, the audiometer configured for performing auditory diagnostic tests; and

a test probe coupled to said audiometer, said probe having a memory for storing information.

42. (New) The auditory test instrument of claim 41, wherein said audiometer is configured for calibrating said plurality of speakers.

43. (New) The auditory test instrument of claim 41, wherein said audiometer comprises:  
at least one test probe;  
a diagnostic subsystem coupled to said at least one test probe, said diagnostic subsystem adapted to implement at least one auditory diagnostic test;  
input means adapted to accept commands from a user;  
a display adapted to display results from said at least one auditory diagnostic test; and  
at least one processor coupled to said diagnostic subsystem and to said input means.

44. (New) The auditory test instrument of claim 41, wherein said information comprises probe calibration information and/or probe configuration information.

45. (New) The auditory test instrument of claim 44, wherein said probe is configured for automatically communicating said calibration data to said audiometer upon coupling said at least one probe to said audiometer and providing power to said audiometer.

46. (New) The auditory test instrument of claim 44, wherein said probe is configured for automatically communicating said probe configuration data to said audiometer, and wherein said audiometer is configured for automatically selecting at least one auditory diagnostic test in response to said probe configuration data.